SBR No. 17/22-23
DATED 05/09/2022

EE/ELE/Y/BR No. 17/22-23
Dt. 05/09/2022

Original/Duplicate/Triplicate

CONTRACT CERTIFICATE

(For Other Works)

No. 1st & Final bill

Date.....2010

Division: **Electrical (yelahanka)**

Sub-Division: **Electricals**

Bill Received No. Dated

Divisional Cash Book Voucher No..... Dated.....

Sub Divisional **Job Code :-006-21-000019**

Schedule Docket No.

Head of Account : P-CODE:P0300 D.R.No. :

Name of Work:- ProvidingLED Street lighting along with Tubular poles and connected accessories from jakkur Rail Way crossing to Thanisandra Main road(Rail way Parallel Road) in ward no 05 &06.

Name of Contractor and Full Address: **M/s Prashanth Electricals.**

Reference to Agreement No:- EE(ele)/YZ/W.O/000004/2021-22 Date 17/11/2021

Certified that the measurements were taken by me on 7/6/22 and recorded of Pages 257317 to 7324 of measurement Book No. 2574/21-22 and that the work is satisfactorily executed.

For PRASHANTH ELECTRICALS

Proprietor

Contractor

Officer-in-charge of work

Certified that the measurement were taken by me on 7/6/22 and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Sub-Division Officer

II Memorandum of Payment

1)	Total value of work done or supplies made as per account within	BILL AMT 1760046:00
2)	Deduct amount to be held in reserve being .....percent Rs.....	IT 1% 17600:00
3)	" Balance	LWC 1% 17600:00
4)	Deduct Payment:	
	a) Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D. No..... towards cash advance recovery of — Amount adjusted	CRT-0.1% 1760:00
	b) Payments Now made { cost store or other material supplied. recovery of amount creditable to this/other work Amount paid on this bill Cheque / Cash.	CGST 1% 15943:00
		SGST 1% 15943:00
		Fine 12091:00
5)	Balance being unpaid value of work done held in reserve.	Dedetion 80937:00
6)	Deduct cash advance made on the Office cash Book Voucher No..... dated.....less adjustments.	unadjustments items.
7)	Net amount due to or from Contractor	bycheque 1679109:00
8)	Advance to Contractor for materials brought to site (as detailed) within.	
9)	Value of Government materials supplied.	
		Total amount adjusted

For PRASHANTH ELECTRICALS

Contractor's Signature

Received Rs..... (in words).....

.....

by cash and by adjustment of Payment as per memorandum

(in final settlement of all demands)

Proprietor

Witness

1.

2.

Dated

For PRASHANTH ELECTRICALS

Signature of Contractor

Proprietor

Paid by me by Cheque No.....Dated.....

Cash Rs.....

Dated.....

Initials of Officer making payment

(For use in the Office)

Stamp

ಲೆಕ್ಕಶೀರ್ಷಿಕೆ P0300. M. and R to Street

ರೂ: 1760046:00 ಆಡಿಟ್ ಮಾಡಿ ಸ್ವೀಕರಿಸಿದೆ

ರೂ: 1679109:00 ಚೆಕ್ ನೀಡಬಹುದಾಗಿದೆ

ರೂ: 80937:00 ಹೊಂದಾಣಿಕೆ ಮಾಡಿದೆ

Executive Engineer

ಲೆಕ್ಕ ಅಧೀಕ್ಷಕರು

ಕಾ.ಪಾ.ಅ.(ವ) ಯಲಹಂಕ ವಲಯ

Sl. No	Description	Unit
	Name Of Work:- ProvidingLED Street lighting along with Tubular poles and connected accessories from jakkur Rail Way crossing to Thanisandra Main road(Rail way Parallel Road) in ward no 05 &06.	
1	Fabricating, supplying and erection of ...Mtrs long hot dip **Galvanized Octagonal pole** with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/sec for .....Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom .....mm, top....mm with 3mm thick, suitable base plate and 4Nos of long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc., (excluding foundation) as per drawing appended. **7 meters** - Top 70mm and bottom 130mm dia	Nos
2	Supplying, and fixing of Hot dip Galvanized M.S.Bracket suitable for out door luminaries and mounted on Octagonal pole using necessary bolts, nuts etc., complete.Single Arm Bracket with 1500mm Standard 40/50MM dia	Nos
3	Supplying and Fixing of...mm dia class A GI pipe bracket up to 2 Mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires.Using 32mm dia G.I.Pipe	Nos
4	Supply of LED Streetlight luminaire with pressure die cast aluminium housing body for optimal thermal dissipation. Lamp compartment comprising of anti glare clear diffuser with Injection moulded polycarbonate material, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%, maximum light intensity should be between 60 degrees to 70 degrees. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminaire > IK08. Power Factor >0.9 with mains, Surge Protection- Min 5KV along with Over voltage/ Overload, short circuit/ miss-wiring protection. Compatible for pole mouting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with....W System Power consumption. LED Efficiency>130lm/w, nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 2 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED manufacturer & Cree/Nichia/ Lumileds/Osram make LED Source.LED Streetlight 120 Watts	Nos
5	Fixing halogen/metal halide / SVL / IL / LED floodlight fitting over existing pole / wall ceiling including clamps, bolts, nuts and wiring using suitable capacity wires.	Each
6	Supplying of 1.1 KV LT UG cable XLPE or Heat resistant PVC insulated, PVC extruded Inner sheath armoured UG LT cable as per IS-1554 (Part-1) or IS-7098 Part-1, Armouring strip thickness in average +5% and resistivity 14 Ohms/Kms (Max) as per IS-3975 5) 3.5 core 25 sqmm	Mtr
7	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required. 7) 25 sqmm to 75 sqmm	Rmt
8	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7) 2) In soil (ordinary)	Mtrs
9	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. and M.S. flat ... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. 2) 50x50x6mm	Per Mtr
10	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) THREE POLE, 1) 100Amps 25kA.	Each
11	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden/panel using necessary nuts, bolts and washers. 4) 100Amps	Per Mtr
12	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 7tanks treatment with powder coated paint and finally finished with approved colour etc., complete. 1) 14SWG	Mtr

Previous Measurement		Present Measurement			Total Upto Date		Remarks
Qty	Cost	Qty	Rate	Amount	Qty	Cost	
		49	6984.27	342229.23	49	342229.23	
		49	1349.57	66128.93	49	66128.93	
		20	533.57	10671.4	20	10671.4	
		69	5878.8	405637.2	69	405637.2	
		69	111.83	7716.27	69	7716.27	
		2397	115.02	275702.94	2397	275702.94	
		2397	22.37	53620.89	2397	53620.89	
		502	48.56	24377.12	502	24377.12	
		29	210.87	6115.23	29	6115.23	
		4	2894.67	11578.68	4	11578.68	
		12	223.01	2676.12	12	2676.12	
		0	0.26	0	0	0	

13	Supplying and fixing hylum plastic sheet 3mm thick with necessary nitches for fixing switches, regulators etc., and fixing on existing wood or metal box using N.F. screws.	Sqcm
14	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 12 mm dia	No
15	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required.25x3mm GI strip	Mtrs
16	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV.40mm	Mtrs
17	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.25Sqmm	Nos
18	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.10. sqmm	Mtrs
19	Wiring for lighting/power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS-694:confirming to latest amendments.1.5 sqmm	Mtrs
20	Wiring for lighting/power circuit using one of PVC insulated 1100V grade, stranded Aluminium wire single core in open or concealed system of wiring. 4 sqmm	Mtrs
21	Providing RCC Foundation for Installation of Octagonal/Tubular Pole of up to 8 mtr Data-rate As per The Drawing and Civil estimate enclosed	Nos
22	Thiristor based single/ Three phase smart street light control and monitoring system Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.	Nos
23	Supplying of 1.1KV grade Aerial Bunched Cable Stranded & Compacted Aluminum Phase Conductor, and Stranded Messenger Conductor with all aluminum Alloy, Phase Conductor is insulated with XLPE Compound, insulated Messenger with specified IS-14255:1995 & confirming to GTP of GROUP-A.2 X 25 + 1 X 25 SQ.MM	Per Mtr
24	Stringing of 1.1kV grade aerial bunched 3 core cable of XLPE insulation of size (3x95) (for Phase conductor) + (1x70) (insulated messenger neutral) + (1x25) for street light control.	Mtrs
25	Supplaying of LT 2 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018	Nos
26	Supplaying of RCC Pole clamp - MS (Dwg No. BESCOM/GM/QS&S/30 Dtd 24.11.2018)	Nos
27	Supplaying of Piercing Connector Suitable for 16 Sqmm - 95 Sqmm AB Cable - Street Light Connections	Nos
28	Supplaying of Dead End Clamp/Anchor Clamp Assembly 25 to 95 Sqmm Bare Messenger(Exclusive of pole clamp and eye hook)	Nos
29	Installation of Insulation piercing connector for main to street light Main : 16-95sqmm, Tap : 1.5-10sqmm(EP95)	Nos
30	Fixing of Universal/ Dead end Hook	Nos
31	Supplay of Suspension Clamp Assembly 16 to 70 Sqmm Bare Messenger(Exclusive of pole clamp and eye hook) 284845 No	Nos
32	Erection of Suspension Clamp - 25 to 95 sqmm bare messenger	

		0	0.15	0	0	0	
		4	1916.81	7667.24	4	7667.24	
		19	47.93	910.67	19	910.67	
		16	214.07	3425.12	16	3425.12	
		4	223.65	894.6	4	894.6	
		38	73.49	2792.62	38	2792.62	
		194	13.01	2523.94	194	2523.94	
		98	5.75	563.5	98	563.5	
		49	3175.83	155615.67	49	155615.67	
		4	32908.50	131634	4	131634	
		398	92.20	36695.6	398	36695.6	
		398	14.35	5711.3	398	5711.3	
		20	55.59	1111.8	20	1111.8	
		20	33.87	677.4	20	677.4	
		36	105.44	3795.84	36	3795.84	
		4	86.27	345.08	4	345.08	
		36	37.70	1357.2	36	1357.2	
		4	81.15	324.6	4	324.6	
		18	125.24	2254.32	18	2254.32	
		18	81.15	1460.7	18	1460.7	

33	RCC Pole - 9 Mtr Long, 150 Kg WL Sq Section (Dwg No. BESCOM/GM/QS&S/51 Dtd 24.11.2018) as per IS-785	N
34	Supplaying of LT 4 Pin X Arms - MS (Dwg No. BESCOM/GM/QS&S/32 Dtd 24.11.2018)	N
35	Supplaying of 1.1kV Ceramic Pin Insulator (Shell only	N
36	Supplaying of 1.1kV GI Pin FOR 1.1kV Cermaic shell Insulator	N
37	Supplaying of No.8 Strain Insulator	N
38	Supplaying of Weasel ACSR (6/2.59 mm Al + 1/2.59 mm St), Std Wt : 128 kgs/km	M
39	Digging of Pits 1.8 mtr depth for errection of 9 to 10 mtr Long Steel/RCC/PSC supports as per approved Drawing.Ordinary Soil	N
40	Erection of RCC/PSC poles 9 to 10 mtr long but in a pit of 1.8 mtr depth	N
41	Fixing of 4 Pin cross arm with insulator and Braces fixing	N
42	Stringing of conductor squirrel, weasel, binding of conductor on each insulator and dead ending on strain or disc/strain insulator by means of clamps for Rabbit ACSR	M
	Total Rs	
	GST Charges (12% on SR Electrical items) Item No 01 to 21	
	Total Rs	

Certificate: 1. Certefied that the Above Work has been carreid out satisfactorily

Assistant Executive Engineer (Ele.)
BBMP, Bangalore

		3	4578.44	13735.32	3	13735.32	
		3	122.05	366.15	3	366.15	
		10	11.50	115	10	115	
		10	19.17	191.7	10	191.7	
		8	10.22	81.76	8	81.76	
		718	13.77	9886.86	718	9886.86	
		3	265.82	797.46	3	797.46	
		3	479.25	1437.75	3	1437.75	
		3	67.73	203.19	3	203.19	
		718	1.83	1313.94	718	1313.94	
				1594344.34		**1594344.34**	
	1380847.37			165701.68		165701.68	
				1760046.02		**1760046.02**	